

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Withdrawn) An isolated polypeptide selected from the group consisting of:
 - a) a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, and SEQ ID NO:14.
 - b) a polypeptide comprising a naturally occurring amino acid sequence at least 90% identical to an amino acid sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, and SEQ ID NO:14,
 - c) a biologically active fragment of a polypeptide having an amino acid sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, and SEQ ID NO:14, and
 - d) an immunogenic fragment of a polypeptide having an amino acid sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, and SEQ ID NO:14.
2. (Withdrawn) An isolated polypeptide of claim 1 comprising an amino acid sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, and SEQ ID NO:14.
3. (Currently Amended) An isolated polynucleotide encoding a polypeptide ~~of claim 1~~ selected from the group consisting of:
 - a) a polypeptide comprising the amino acid sequence of SEQ ID NO: 12;

b) a polypeptide comprising a naturally occurring amino acid sequence at least 90% identical to the amino acid sequence of SEQ ID NO: 12;

c) a biologically active fragment of a polypeptide having the amino acid sequence of SEQ ID NO: 12; and

d) an immunogenic fragment of a polypeptide having the amino acid sequence of SEQ ID NO: 12, wherein the immunogenic fragment comprises at least 10 contiguous amino acids of SEQ ID NO: 12.

4. (Currently Amended) An isolated polynucleotide encoding a polypeptide of claim ~~[[2]]~~ 3 comprising the amino acid sequence of SEQ ID NO: 12.

5. (Currently Amended) An isolated polynucleotide of claim 4 comprising ~~[[a]]~~ the polynucleotide sequence ~~selected from the group consisting of SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, and SEQ ID NO:28.~~

6. (Original) A recombinant polynucleotide comprising a promoter sequence operably linked to a polynucleotide of claim 3.

7. (Original) A cell transformed with a recombinant polynucleotide of claim 6.

8. (Canceled)

9. (Currently Amended) A method for producing a polypeptide of claim ~~[[1]]~~ 3, the method comprising:

a) culturing a cell under conditions suitable for expression of the polypeptide, wherein said cell is transformed with a recombinant polynucleotide, and said recombinant polynucleotide comprises a promoter sequence operably linked to a polynucleotide encoding the polypeptide of claim 1, and

b) recovering the polypeptide so expressed.

10. (Withdrawn) An isolated antibody which specifically binds to a polypeptide of claim 1.

11. (Currently Amended) An isolated polynucleotide selected from the group consisting of:

a) a polynucleotide comprising ~~[[a]] the polynucleotide sequence selected from the group consisting of SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, and SEQ ID NO:28,~~

b) a polynucleotide comprising a naturally occurring polynucleotide sequence at least ~~[[70%]]~~ 90% identical to ~~[[a]] the polynucleotide sequence selected from the group consisting of SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, and SEQ ID NO:28,~~

c) a polynucleotide complementary to a polynucleotide of a),

d) a polynucleotide complementary to a polynucleotide of b), and

e) an RNA equivalent of a)-d).

12. (Canceled)

13. (Currently Amended) A method of detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 11, the method comprising:

a) hybridizing the sample with a probe comprising at least 20 contiguous nucleotides comprising a sequence complementary to said target polynucleotide in the sample, and which probe specifically hybridizes to said target polynucleotide, under conditions whereby a hybridization complex is formed between said probe and said target polynucleotide or fragments thereof, and

b) detecting the presence or absence of said hybridization complex, ~~and, optionally, if present, the amount thereof.~~

14. (Canceled)

15. (Currently Amended) A method of detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 11, the method comprising:

- a) amplifying said target polynucleotide or fragment thereof using polymerase chain reaction amplification, and
- b) detecting the presence or absence of said amplified target polynucleotide or fragment thereof; ~~and, optionally, if present, the amount thereof.~~

16. (Withdrawn) A composition comprising a polypeptide of claim 1 and a pharmaceutically acceptable excipient.

17. (Withdrawn) A composition of claim 16, wherein the polypeptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, and SEQ ID NO:14.

18. (Canceled)

19. (Withdrawn) A method of screening a compound for effectiveness as an agonist of a polypeptide of claim 1, the method comprising:

- a) contacting a sample comprising a polypeptide of claim 1 with a compound, and
- b) detecting agonist activity in the sample.

20.-21. (Canceled)

22. (Withdrawn) A method of screening a compound for effectiveness as an antagonist of a polypeptide of claim 1, the method comprising:

- a) contacting a sample comprising a polypeptide of claim 1 with a compound, and
- b) detecting antagonist activity in the sample.

23.-24. (Canceled)

25. (Withdrawn) A method of screening for a compound that specifically binds to the polypeptide of claim 1, said method comprising the steps of:

- a) combining the polypeptide of claim 1 with at least one test compound under suitable conditions, and
- b) detecting binding of the polypeptide of claim 1 to the test compound, thereby identifying a compound that specifically binds to the polypeptide of claim 1.

26.-27. (Canceled)

28. (Withdrawn) A method of screening for potential toxicity of a test compound, said method comprising:

- a) treating a biological sample containing nucleic acids with the test compound;
- b) hybridizing the nucleic acids of the treated biological sample with a probe comprising at least 20 contiguous nucleotides of a polynucleotide of claim 11 under conditions whereby a specific hybridization complex is formed between said probe and a target polynucleotide in the biological sample, said target polynucleotide comprising a polynucleotide sequence of a polynucleotide of claim 11 or fragment thereof;
- c) quantifying the amount of hybridization complex; and
- d) comparing the amount of hybridization complex in the treated biological sample with the amount of hybridization complex in an untreated biological sample, wherein a difference in the amount of hybridization complex in the treated biological sample is indicative of toxicity of the test compound.

29. (Currently Amended) An isolated polynucleotide comprising at least 60 contiguous nucleotides of ~~a polynucleotide of claim 11~~ :

- a) the polynucleotide sequence of SEQ ID NO: 26;
- b) a naturally occurring polynucleotide sequence at least 90% identical to the polynucleotide sequence of SEQ ID NO: 26;

- c) a polynucleotide complementary to the polynucleotide of a),
- d) a polynucleotide complementary to the polynucleotide of b), and
- e) an RNA equivalent of a)-d).

30. (Previously presented) A method of claim 13, wherein the probe comprises at least 60 contiguous nucleotides.

31. (New) A method of claim 13, further comprising:

- c) detecting the amount of said hybridization complex, if present in the sample.

32. (New) A method of claim 15, further comprising:

- c) detecting the amount of said amplified target polynucleotide or fragment thereof, if present in the sample.